

WHAT IS CLAIMED IS:

1. An image process device including an image process unit and a system control unit,

wherein

5           the image process unit comprises:

an image input interface that receives inputs of image data from an image input device;

data packet generating means for generating data packets from image data;

10           first packet transfer means for

transferring the data packets to the system control unit; and

an image output interface that outputs image data to an image output device,

15           the system control unit comprises:

memory control means for having a memory store the data packets transferred from the image process unit and reading out the data packets from the memory; and

20           second packet transfer means for

transferring the data packets to the image process unit, and

the first and second packet transfer means transfer packets using mutually different connection paths between the system control unit and the image process unit.

2. The image process device according to claim  
1, wherein the system control unit and the image  
process unit are configured on mutually different  
semiconductor substrates.

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3. The image process device according to claim  
1, wherein the system control unit further comprises  
command packet generating means for generating  
command packets to control operations of the image  
10 process unit in accordance with user's manipulations  
and transfers the command packets to the image  
process unit by using the second packet transfer  
means.

15 4. The image process device according to claim  
1, wherein the image process unit further comprises  
interrupt packet generating means for generating  
interrupt packets to notify the system control unit  
of an interrupt, and transfers the interrupt packets  
20 to the system control unit by using the first packet  
transfer means.

5. The image process device according to claim  
1, wherein  
25 the data packet generating means comprises:  
raster rectangle conversion means for  
converting raster image data into plural pieces of

rectangle image data;  
means for generating an page ID that  
specifies a page of the image data; and  
means for generating positional data that  
5 specifies a position of the rectangle image data, and  
the data packet includes at least the page ID,  
the positional data, and the rectangle image data.

6. The image process device according to claim  
10 5, wherein

the image process unit further comprises:  
means for extracting the rectangle image  
data from the data packets; and  
rectangle raster conversion means for  
15 converting the plural pieces of rectangle image data  
into the raster image data in accordance with the  
page ID and the positional data.

7. The image process device according to claim  
20 5, wherein the image process unit further comprises  
rectangle image process means for processing the  
rectangle image data.